WOODS MOW'N MACHINE SWEEPER FSW6000F FSW6000T

MAN0118 Rev. 12/1/2006

WCCDS®
Tested. Proven. Unbeatable.



TO THE DEALER:

Assembly and proper installation of this product is the responsibility of the Woods® dealer. Read manual instructions and safety rules. Make sure all items on the Dealer's Pre-Delivery and Delivery Check Lists in the Operator's Manual are completed before releasing equipment to the owner.

The dealer must complete the Product Registration included with the Operator's Manual. The customer must sign the registration which certifies that all Dealer Check List items have been completed. The dealer is to return the prepaid postage portion to Woods, give one copy to the customer, and retain one copy. **Failure to complete and return this card does not diminish customer's warranty rights.**

TO THE OWNER:

Read this manual before operating your Woods equipment. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your dealer. To locate your nearest dealer, check the Dealer Locator at www.WoodsEquipment.com, or in the United States and Canada call 1-800-319-6637.

The equipment you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the equipment.

For service, your authorized Woods dealer has trained mechanics, genuine Woods service parts, and the necessary tools and equipment to handle all your needs.

Use only genuine Woods service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation. Record the model number and serial number of your equipment in the spaces provided:

Model:	Date of Purchase:
Serial Number: (see Safety Decal section for loc	ation)

Provide this information to your dealer to obtain correct repair parts.

Throughout this manual, the term **IMPORTANT** is used to indicate that failure to observe can cause damage to equipment. The terms **CAUTION**, **WARNING**, and **DANGER** are used in conjunction with the Safety-Alert Symbol (a triangle with an exclamation mark) to indicate the degree of hazard for items of personal safety.



This Safety-Alert Symbol indicates a hazard and means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.



Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed.



Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

IMPORTANT

Indicates that failure to observe can cause damage to equipment.

NOTE

Indicates helpful information.

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CENTRAL FABRICATORS®

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ii Introduction

Gen'l (Rev. 5/23/2005)

TABLE OF CONTENTS

INTRODUCTIONCOVER
GENERAL INFORMATION
SAFETY RULES
SAFETY DECALS
OPERATION
SERVICE 8
ASSEMBLY9
DEALER CHECK LISTS
PARTS14
BOLT TORQUE CHART
BOLT SIZE CHART & ABBREVIATIONS
REPLACEMENT PARTS WARRANTY
PRODUCT WARRANTY INSIDE BACK COVER

GENERAL INFORMATION

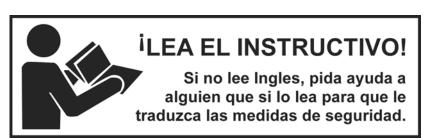
The purpose of this manual is to assist you in operating and maintaining your WOODS Mow'n Machine and Sweeper. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance. These instructions have been compiled from extensive field experience and engineering data. Some information may be general in nature due to unknown and varying operating conditions. However, through experience and these instructions, you should be able to develop procedures suitable to your particular situation.

The illustrations and data used in this manual were current at the time of printing, but due to possible inline production changes, your machine may vary slightly in detail. We reserve the right to redesign and change the machines as may be necessary without notification.

WARNING

■ Some illustrations in this manual show the mower with safety shields removed to provide a better view. The mower should never be operated with any safety shielding removed.

Throughout this manual, references are made to right and left direction These are determined by standing behind the equipment facing the direction of forward travel.





This Operator's Manual should be regarded as part of the machine. Suppliers of both new and second-hand machines must make sure that this manual is provided with the machine.

A

SAFETY RULES ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



ILEA EL INSTRUCTIVO!

Si no lee Ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad.

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by an operator's single careless act.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, judgement, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

It has been said, "The best safety device is an informed, careful operator." We ask you to be that kind of operator.

TRAINING

- Safety instructions are important! Read all attachment and power unit manuals; follow all safety rules and safety decal information. (Replacement manuals and safety decals are available from your dealer. To locate your nearest dealer, check the Dealer Locator at www.WoodsEquipment.com, or in the United States and Canada call 1-800-319-6637.) Failure to follow instructions or safety rules can result in serious injury or death.
- If you do not understand any part of this manual and need assistance, see your dealer.
- Know your controls and how to stop engine and attachment quickly in an emergency.
- Operators must be instructed in and be capable of the safe operation of the equipment, its attachments, and all controls. Do not allow anyone to operate this equipment without proper instructions.
- Never allow children or untrained persons to operate equipment.

PREPARATION

■ Check that all hardware is properly installed. Always tighten to torque chart specifications unless instructed otherwise in this manual.

- Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head.
- Make sure attachment is properly secured, adjusted, and in good operating condition.
- Make sure the driveline spring-activated locking collar slides freely and is seated firmly in power unit PTO groove. Make sure the set screws securely attach driveline to the attachment gearbox shaft.
- The safety interlock system was installed for your protection. Do not disconnect, disable, override, or execute any action that would cause this system to malfunction. If malfunction occurs, stop all operation and contact dealer for repair.
- Remove accumulated debris from this equipment, power unit, and engine to avoid fire hazard.
- Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)
- Make sure shields and guards are properly installed and in good condition. Replace if damaged.
- When using weight transfer system, correct counterweight must be used to maintain stability. See counterweight chart in power unit manual or contact dealer.
- Inspect and clear area of stones, branches, or other hard objects that might be thrown, causing injury or damage.

OPERATION

- Never place any part of the body underneath implement/attachment or between its moving parts even when the engine has been turned off. Service work does not require going underneath unit. Mechanical failures, electrical failures, or operating controls can cause equipment to drop.
- Keep bystanders away from equipment.
- Do not operate or transport equipment while under the influence of alcohol or drugs.
- Operate only in daylight or good artificial light.
- Keep hands, feet, hair, and clothing away from equipment while engine is running. Stay clear of all moving parts.
- Never allow riders on power unit or attachment.
- Do not operate PTO during transport.

A

SAFETY RULES ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



- Look down and to the rear and make sure area is clear before operating in reverse.
- Do not operate or transport on steep slopes.
- Do not stop, start, or change directions suddenly on slopes.
- Use extreme care and reduce ground speed on slopes and rough terrain.
- Watch for hidden hazards on the terrain during operation.
- Stop power unit and equipment immediately upon striking an obstruction. Turn off engine, remove key, inspect, and repair any damage before resuming operation.
- Moving steering levers rapidly from forward to reverse or reverse to forward could cause loss of control.
- Do not operate power unit with attachment removed. Attachment is required for power unit stability.
- Before dismounting power unit or performing any service or maintenance, follow these steps: disengage power to equipment, lower the 3-point hitch and all raised components to the ground, operate valve levers to release any hydraulic pressure, set parking brake, stop engine, remove key, and unfasten seat belt.
- Before performing any service or maintenance, lower attachment to ground, turn off power unit engine, remove key, and disconnect battery ground cable (negative -).

TRANSPORTATION

- Use extra care when loading or unloading the machine onto a trailer or truck.
- Never allow riders on power unit or attachment.
- Do not operate or transport on steep slopes.
- Do not operate or transport equipment while under the influence of alcohol or drugs.

MAINTENANCE

■ Before performing any service or maintenance, lower attachment to ground, turn off power unit engine, remove key, and disconnect battery ground cable (negative -).

- Do not modify or alter or permit anyone else to modify or alter the equipment or any of its components in any way.
- Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head.
- Make sure attachment is properly secured, adjusted, and in good operating condition.
- Never perform service or maintenance with engine running.
- Never place any part of the body underneath implement/attachment or between its moving parts even when the engine has been turned off. Service work does not require going underneath unit. Mechanical failures, electrical failures, or operating controls can cause equipment to drop.
- Do not put Mow'n Machine into service unless clutch is working properly. When the engine is at full throttle, PTO-driven accessories must stop within five seconds after the PTO switch is turned to "OFF." See your dealer for replacement clutches.
- Keep all persons away from operator control area while performing adjustments, service, or maintenance.
- Tighten all bolts, nuts and screws to torque chart specifications. Check that all cotter pins are installed securely to ensure equipment is in a safe condition before putting unit into service.
- Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)
- Make sure shields and guards are properly installed and in good condition. Replace if damaged.

STORAGE

- Block equipment securely for storage.
- Keep children and bystanders away from storage area.



SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! Replace Immediately If Damaged!





4 - PN 18869

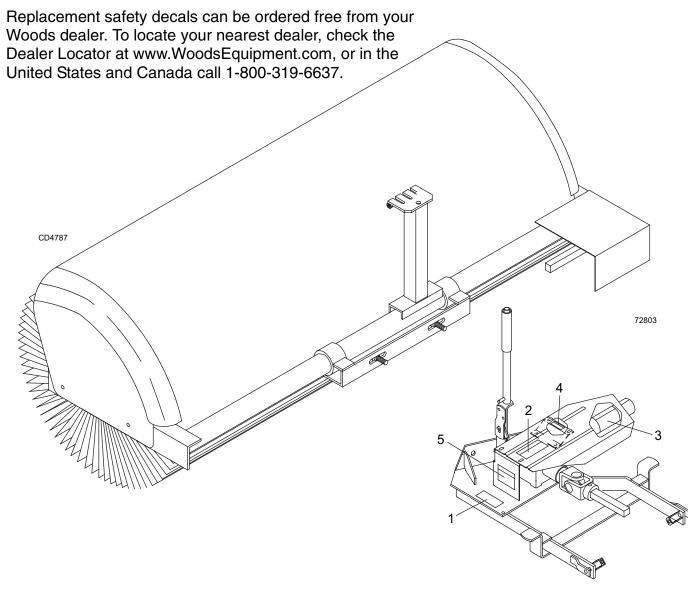
BE CAREFUL!

Use a clean, damp cloth to clean safety decals.

Avoid spraying too close to decals when using a pressure washer; high-pressure water can enter through very small scratches or under edges of decals causing them to peel or come off.



1 - SERIAL NUMPER PLATE





SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! **Replace Immediately If Damaged!**



2 - PN 18864



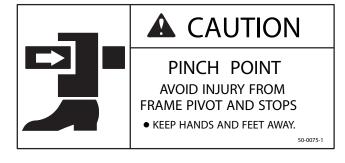
ROTATING DRIVELINE **CONTACT CAN CAUSE DEATH KEEP AWAY!**

DO NOT OPERATE WITHOUT -

- All driveline guards, tractor and equipment shields in place
- Drivelines securely attached at both ends
- Driveline guards that turn freely on driveline

18864-C

5 - PN 72803



3 - PN 33347



Safety 5

OPERATION

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by an operator's single careless act.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, judgement, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

It has been said, "The best safety device is an informed, careful operator." We ask you to be that kind of operator.

WARNING

- Safety instructions are important! Read all attachment and power unit manuals; follow all safety rules and safety decal information. (Replacement manuals and safety decals are available from your dealer. To locate your nearest dealer, check the Dealer Locator at www.WoodsEquipment.com, or in the United States and Canada call 1-800-319-6637.) Failure to follow instructions or safety rules can result in serious injury or death.
- Make sure the driveline spring-activated locking collar slides freely and is seated firmly in power unit PTO groove. Make sure the set screws securely attach driveline to the attachment gearbox shaft.
- Before performing any service or maintenance, lower attachment to ground, turn off power unit engine, remove key, and disconnect battery ground cable (negative -).
- Make sure attachment is properly secured, adjusted, and in good operating condition.
- Never allow children or untrained persons to operate equipment.
- Keep bystanders away from equipment.
- Do not stop, start, or change directions suddenly on slopes.



CAUTION

Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

REAR TRACTOR WEIGHT REQUIREMENTS

The sweeper attachment requires additional rear tractor weight as shown in the counterweight chart below.

Contact your WOODS dealer for counterweights and mount kit appropriate for your specific tractor.

REAR TRACTOR COUNTERWEIGHT **REQUIREMENT CHART**

Sweeper Mow'n Machines

Model F-Series F-Series with

ROPS

60" Sweeper 100 lbs. 150 lbs.

2-WAY ANGLE MOUNT HEIGHT **ADJUSTMENT**

The sweeping height of the broom should be adjusted by the actuator motor. When using the broom for dethatching, the gauge wheels should be mounted to the sides of the Sweeper broom and the height of the broom should be adjusted by placing spacers on the wheel forks above or below the fork housings.

FIXED ANGLE HEIGHT ADJUSTMENT

The sweeping height of the broom is adjusted by pushing the button on the end of the adjustment lever and moving lever rearward to raise broom and forward to lower broom.

SWEEPING TIPS



WARNING

- Never place any part of the body underneath implement/attachment or between its moving parts even when the engine has been turned off. Service work does not require going underneath unit. Mechanical failures, electrical failures, or operating controls can cause equipment to drop.
- Before performing any service or maintenance, lower attachment to ground, turn off power unit engine, remove key, and disconnect battery ground cable (negative -).
- Make sure shields and guards are properly installed and in good condition. Replace if damaged.
- Keep hands, feet, hair, and clothing away from equipment while engine is running. Stay clear of all moving parts.

Always operate tractor engine at full governed RPM when using the bi-directional broom for snow removal. Operate tractor engine at half throttle when de-thatching grass or sweeping dirt.

When de-thatching grass, stop tractor, disengage PTO, turn off key and check for grass wrap around PTO shaft and universal shaft every 30 minutes of operation.

Use the gauge wheels only when de-thatching grass.

Before de-thatching or snow removal, analyze the area to determine the best procedure. Consider the grass type or snow depth and the terrain type (rolling, level or rough).

UNEVEN TERRAIN

WARNING

- Do not operate or transport on steep slopes.
- Do not stop, start, or change directions suddenly on slopes.
- Use extreme care and reduce ground speed on slopes and rough terrain.

Pass diagonally through sharp dips and avoid sharp drops to prevent hanging up the tractor and broom. Practice will improve your skills in maneuvering on uneven terrain.

Avoid sudden starts and stops when traveling up and down hill. Never sweep or back up steep hills.

Move very slowly when turning or operating on slopes to reduce the possibility of unit tipping or loss of control.

PRE-OPERATION CHECK LIST

(Owner Responsibility)

 Review and follow safety rules and safety decals on pages 2 through 5.
 Make sure driveline spring-activated locking pin or collar slides freely and securely con- nects driveline to tractor PTO shaft.
 Check that equipment is properly and securely attached to tractor.
 Service equipment according to lubrication table.
 Check that all hardware and cotter pins are properly installed and secured.
 Check that all shields and guards are properly installed and in good condition. Replace if damaged.
 Inspect area to be cleaned and remove stones, branches or other hard objects that might be

SERVICE

A CAUTION

■ Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

A WARNING

- Before performing any service or maintenance, lower attachment to ground, turn off power unit engine, remove key, and disconnect battery ground cable (negative -).
- Never place any part of the body underneath implement/attachment or between its moving parts even when the engine has been turned off. Service work does not require going underneath unit. Mechanical failures, electrical failures, or operating controls can cause equipment to drop.

LUBRICATION

To prevent excessive wear, do not let excess grease collect on or around parts. Figure 1 shows the lubrication points. The accompanying chart gives the frequency of lubrication in operating hours based on normal operating conditions. Severe or unusual conditions may require more frequent lubrication.

In addition to these lubrication points, lightly oil all roller chains periodically.

Check the oil level in gearboxes periodically. Maintain oil level to the bottom of fill plug hole. Use SAE 90W oil.

CHAIN ADJUSTMENT

Check periodically for proper chain tension between gearboxes. If chain tightening is required, loosen the four mounting bolts on the right gearbox and slide the gearbox to the right until proper chain tension is achieved. Do not overtighten chain.

WARNING

■ Make sure shields and guards are properly installed and in good condition. Replace if damaged.

NOTE: When performing any maintenance or making adjustments to the Sweeper broom, refer to the Sweepster) operator's manual.

Ref.	Description	Frequency
1	Guage Wheel Pivot (2 fittings)	8 Hours
2	Gauge Wheel (2 fittings)	8 Hours
3	Broom Pivot (2 fitttings)	40 Hours
4	Power Shafts (6 fittings)	8 Hours

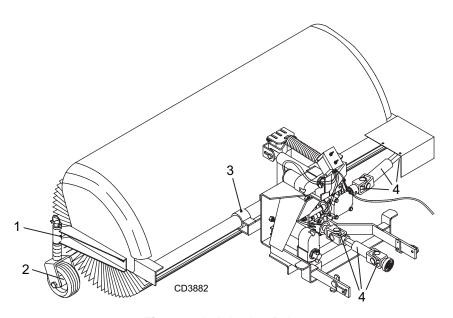


Figure 1. Lubrication Points

8 Service MAN0118 (Rev. 12/23/2004)

ASSEMBLY

DEALER SET-UP INSTRUCTIONS

Assembly of this sweeper is the responsibility of the WOODS dealer. It should be delivered to the owner completely assembled, lubricated, and adjusted for normal cutting conditions.

FIXED ANGLE MOUNT KIT INSTALLATION

(Figure 2)

Mark Sweeper input driveshaft at 6-1/2 inches from the center cross. Loosen the set screw retaining the rectangular shaft and remove it from the U-joint. Cut shaft to proper length and reinstall shaft and secure with set screws.

Position broom head in front of mount while inserting broom head input shaft into sleeve assembly (7). Bolt

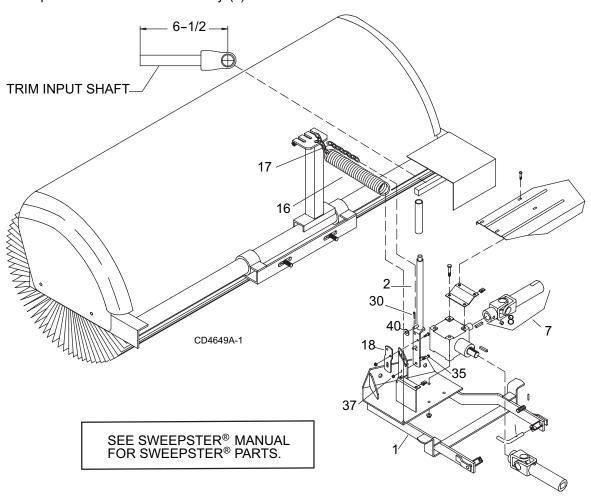
broom head to mount (1) using bolts provided with broom head.

Attach height adjustment lever (2), and lever guide (18) as shown. Pivot bolt (35) and nut (37) must be snug but still allow the lever to rotate.

Secure one end of chain (17) to lug on adjustment lever using washer (40) and cotter pin (30). Attach midpoint of chain to slots in broom head lift arm. Secure chain to slots using pin provided with the broom head.

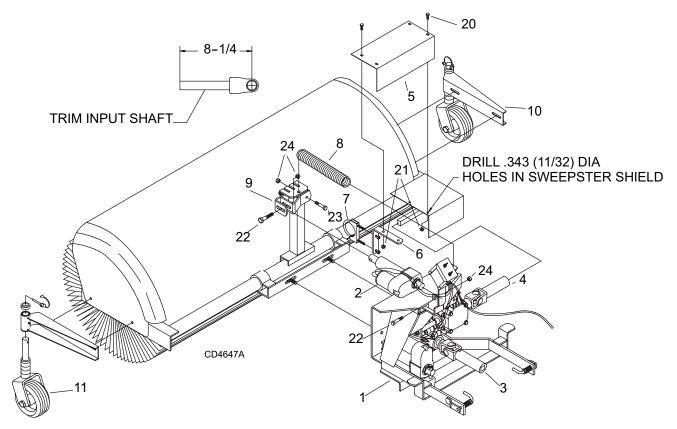
Attach assist spring (16) to hole in sweeper mount. Attach other end of spring to loose end of chain.

Attach broom and mount to tractor according to instructions on page 12.



- 1. Fixed angle sweeper mount
- 2. Lever
- 7. Output shaft
- 16. Spring
- 17. 20 Link chain

- 18. Lever guide
- 30. Cotter pin
- 35. Hex head cap screw
- 37. Elastic stop nut
- 40. Standard flat washer



- 1. Broom mount
- 2. 12V Actuator
- 3. Universal half sheet
- 4. Universal half sleeve
- 5. Power shaft shield
- 6. Shield mount strap

- 7. 2-1/2" Clamp
- 8. Extension spring
- 9. Upper actuator mount
- 10. Caster wheel assembly right
- 11. Caster wheel assembly left
- 20. 5/16" x 3/4" NC Hex head cap screw
- 21. 5/16" NC Flanged hex lock nut
- 22. 1/2 NC x 2-1/2 Hex head cap screw
- 23. 1/2 NC x 3 Hex head cap screw
- 24. 1/2 NC Hex locknut

Figure 3. 2-Way Angle Sweeper Installation

2-WAY ANGLE MOUNT KIT

(Figure 3)

Attach upper actuator mount (9) to square upright mast on Sweeper broom head using 1/2 x 3 bolt and 1/2 locknut.

Mark Sweeper input driveshaft at 8-1/4 inches from the center cross. Loosen the set screw retaining the rectangular shaft and remove it from the U-joint. Cut shaft to proper length and reinstall shaft and secure with set screws.

Position broom head in front of mount while inserting broom head input shaft into sleeve assembly (4). Bolt broom head to mount (1) using bolts provided with broom head.

Attach fixed end of upper actuator (2) to mount using $1/2 \times 2$ -1/2 bolt and 1/2 locknut. Attach rod end of actuator to slots in upper actuator mount (9) using $1/2 \times 2$ -1/2 bolts and 1/2 locknut. Slide broom head left or right

until actuator lines up with upper mount. Do not over tighten, rod must be able to float in slot. Attach wire from actuator motor to black and white wires from the switch box.

Attach extension spring (8) to hole in broom head mast and to hole in main mount near rear actuator mounting location.

Attach 2-1/2 clamp (7) and shield mount strap (6) to round cross member of broom frame. Do not tighten fully so shield may be adjusted. Attach power shaft shield (5) to strap. Position shield so it can be bolted to existing chain shield of broom head. Drill 2.343 (11/32) dia holes in broom head shield to mount power shaft shield. Bolt power shaft shield to broom head and tighten all bolts and clamps.

Attach broom and mount to tractor according to instruction in the following section.

ATTACHING SWEEPER TO TRACTOR

(Figure 4)

Replace existing step on 2-way angle mount of tractor with shorter step supplied with sweeper. Remove cotter pin on end of step rod and slide out. Install shorter step and replace rod and cotter pin. Keep existing step for use with mower decks if desired.

Attach sweeper mount (2) to the holes in tractor mounting bracket (1) that allow the broom mount assembly to set in a level position.

Secure mount to tractor by rotating attaching pins (3) rearward to lock pins into place.

Connect the PTO sleeve and yoke to rectangular shaft of sweeper mount. Attach PTO to shaft on tractor.

Refer to instruction in SweepsterR manual and make sure the broom is level prior to operation.

2-WAY ANGLE WIRING INSTRUCTIONS

(Figure 5)

Position the wiring harness along the right mounting arm of mount, under step, and through the hole in the tractor front panel, directly below the right steering lever. The wiring harness may be separated at the connector (A) to ease installation. Disconnect the wiring harness from the tractor at this point when removing the broom from the tractor. Rear section of wiring harness may remain on tractor at all times.

Secure relay and connector to tractor frame using plastic wire ties through holes near seat hinge.

Attach T-tap securely to a purple wire, directly behind the ignition switch, inside the console. Connect the short black pigtail to the T-tap and install a 7.5 amp auto fuse into the slot. Route the black harness lead into the console through the hole near the seat hinge. Connect the pigtail to the black lead from harness.

Attach eyelet of green wire to negative post of battery. Attach eyelet of red wire with fuse holder to positive post of battery.

Route wires and secure them with wire ties so they are clear of all moving parts of the tractor.

When using the broom for de-thatching, bolt the caster wheel assemblies to each side of the broom head using existing bolts in the broom head. The broom's height can be adjusted by placing spacers on wheel forks above or below the fork housings.

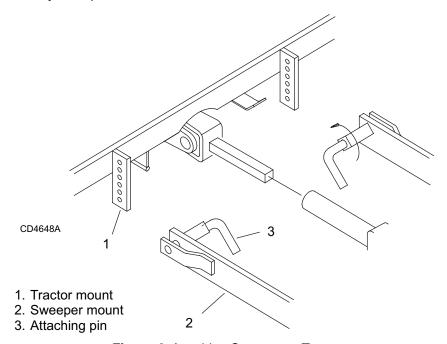
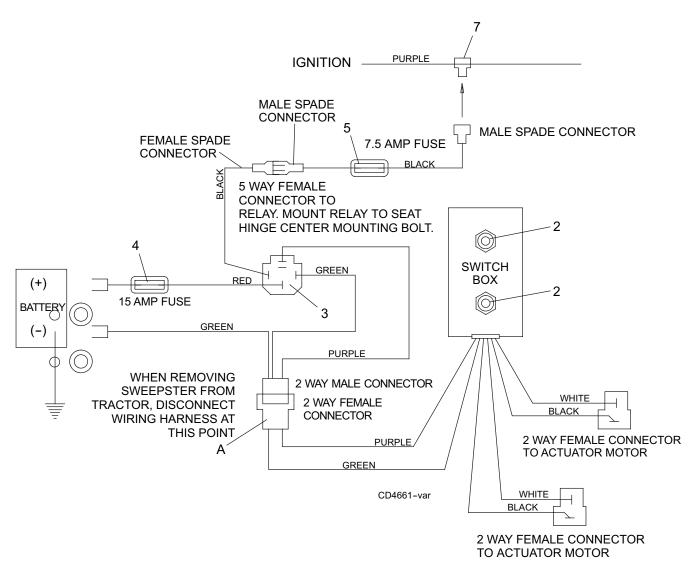


Figure 4. Attaching Sweeper to Tractor



- 1. Wiring harness
- 2. Toggle switch
- 3. Relay 12V
- 4. Auto fuse 15 AMP
- 5. Auto fuse 7.5 AMP
- 6. Actuator wire
- 7. Female spade T-tap

Figure 5. 2-Way Angle Sweeper Wire Diagram

DEALER CHECK LISTS

PRE-DELIVERY CHECK LIST

(Dealer Responsibility)

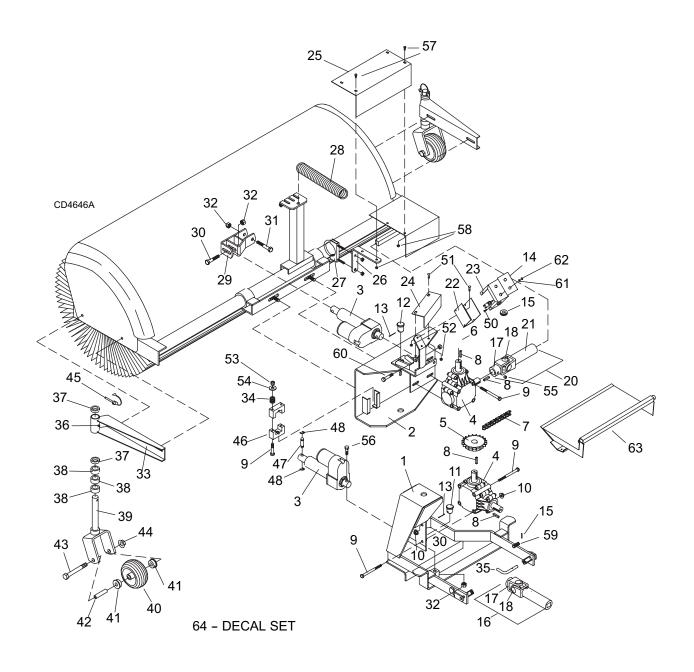
	Inspect the Mow'n Machine and attachments thoroughly after assembly to be certain it is set up properly before delivering it to the customer.
	The following check lists are a reminder of points to inspect. Check off each item as it is found satisfactory or after proper adjustment is made.
	Check that all safety shielding and decals are properly installed and in good condition.
	Check all bolts to be sure they are tight.
	Check that all cotter pins are properly installed.
	Check that all gearboxes are serviced and are not leaking.
	Lubricate equipment as specified in lubrication section.

DELIVERY CHECK LIST

(Dealer Responsibility)

 Point out safety features of cutter. Explain the importance and meaning of all safety decals and the potential hazards when not followed.
 Explain to the customer that sweeper attachment requires the use of rear counterweights, as specified in the counterweight chart, to provide necessary tractor stability.
 Present Operator's Manual and request that customer and all operators read it before operating equipment.
 Show customer how to make adjustments and select proper PTO speed.
 Instruct customer how to lubricate equipment and explain importance of lubrication.
 Show customer how to make sure driveline is properly installed and that spring-activated locking pin or collar slides freely and is seated in groove on tractor PTO shaft.

2-WAY ANGLE SWEEPER ASSEMBLY



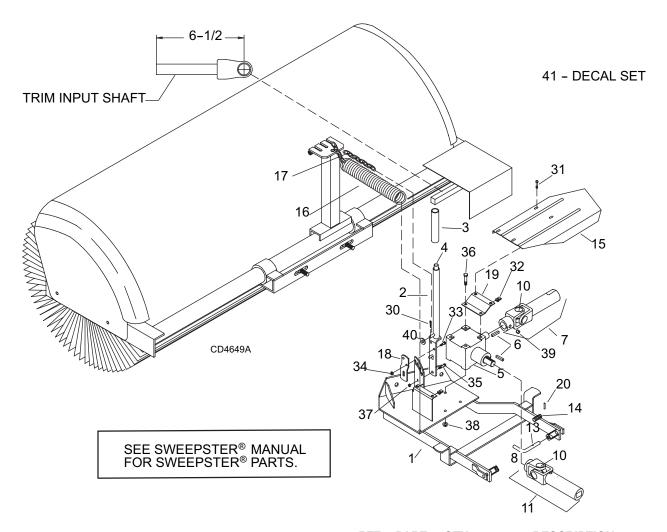
14 Parts MAN0118 (Rev. 12/1/2006)

2-WAY ANGLE SWEEPER ASSEMBLY

REF	PART	DESCRIPTION	REF	PART	DESCRIPTION
_	73967	Sweepster® mounting kit	34	35197	Spring, complete .89 x .12 x 1.0
_	71965	Sweepster® broom head	35	72403	Pin, bent .5 x 1.96
1	72737	Broom main mount	36	1972 *	Grease fitting
2	72118	Broom mount pivot	37	70086	3/8 Spacer
3	72119	12V Actuator	38	70004	3/4 Spacer
4	70767	Gearbox	39	72761	Gauge wheel fork
5	72120	Sprocket 50B20	40	31745	Semi-pneumatic wheel
6	72121	Sprocket 50B11	41	31345	.75 x 1.38 Bearing
7	72122	Chain	42	29368	1/2 x 3/4 x 3-3/8 Sleeve
8	3886 *	1/4 x 1-1/4 Square key	43	23479	1/2 x 5 HHCS
9	12915 *	3/8 NC x 4-1/2 HHCS R5	44	11900	1/2 NC Flanged hex lock nut
10	66885	3/8 NC Flange nut	45	62043	1/4 x 1-3/4 Linch pin
11	72123	Broom mount pin - lower	46	72765	Break-away mount
12	72124	Broom mount pin - upper	47	72101	Break-away pin
13	64462 *	5/32 x 1-1/4 Cotter pin	48	71105	External retainer
14	72769	DCL, Instruction switch	49	4115 *	3/16 x 1-4/8 Spring pin
15	72767	Grommet .06 x .63 x .88	50	21374 *	No 10 x 1/2 Tap screw
16	74046	Universal half shaft	51	1282 *	1/4 NC x 1/2 RD head screw
18	65689	Cross and bearing	52	70065 *	1/4 NC Whiz nut
20	70768	Output shaft	53	6698 *	3/8 Hex lock nut
22	72125	Switch box back	54	565 *	3/8 Standard flat washer
23	72126	Switch box cover	55	4544 *	3/8 NC x 3/8 Set screw
24	72127	Drive chain shield	56	3699 *	1/2 NC x 2 HHCS
25	72128	Power shaft shield	57	6096 *	5/16 x 3/4 HHCS
26	72129	Shield mount strap	58	14139	5/16 Hex flange lock nut
27	72130	2-1/2" Clamp	59	66510	Spring complete .66 x .06 x 2.5
28	70762	Extension spring	60	639 *	1/2 NC x 2-1/2 HHCS
29	72131	Upper actuator mount	61	72793	Locking ring
30	639 *	1/2 NC x 2-1/2 HHCS GR5	62	72794	Face nut
31	3489 *	1/2 NC x 3 HHCS GR5	63	73926	Step, short
32	765 *	1/2 NC Hex lock nut	64	72425	Decal set
33	72764	Fork housing - right		*	Standard Hardware - Obtain Locally

MAN0118 (Rev. 12/1/2006) Parts 15

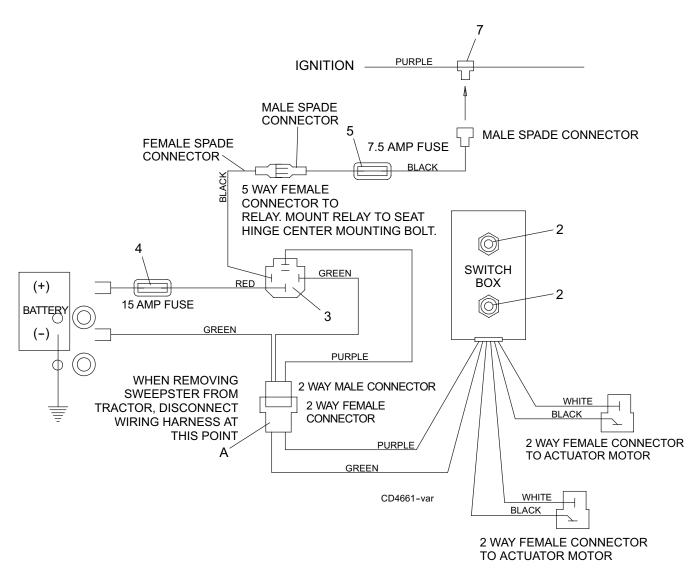
FIXED ANGLE SWEEPER MOUNT KIT ASSEMBLY



REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
-	73959	-	Fixed angle mount kit (includes 1-40)	19	70931	1	Shield mount bracket
-	71965	-	Sweepster® bruck head 60"	20	4115*	2	3/16 x 1-1/8 Spring pin
1	72778	1	Fixed angle sweeper mount	30	3597*	1	1/8 x 1 Cotter pin
2	70764	1	Lever includes items 3 & 4	31	71206*	4	.25-20 x .5 Hex whiz bolt
3	07530700	1	Grip, black foam	32	72474	4	Spring nut 1/4020 U-tapped
4	70766	1	Push rod grip	33	6096*	2	5/16 NX x 3/4 HHCS
5	70767	1	Gearbox	34	14139	2	5/16 NC Flange hex lock nut
6	3886*	2	.25 x 1.25 Square key	35	839*	1	3/8 NC x 1 HHCS
7	70768	1	Output shaft	36	12915*	4	3/8 NC x 4-1/2 HHCS
10	65689	2	Cross & bearing kit	37	71635	1	3/8 NC Elastic stop nut
11	74046	1	Input shaft assembly	38	66885	4	Flange nut, 3/8 NC Spiralock
13	72790	2	Pin, bent .5 x 2.06	39	4544*	2	3/8 NC x 3/8 NC Socket head SS
14	66510	2	Spring compression	40	565*	1	3/8 Standard flat washer
15	70918	1	Shield	41	72425	1	Decal set
16	70762	1	Spring, Ext. 1-3/4 x 3/16 x 11-5/8			*	Standard Hardware - Obtain Locally
17	33046	1	20-Link chain				
18	70772	1	Lever guide				

16 Parts MAN0118 (Rev. 12/1/2006)

2-WAY ANGLE SWEEPER WIRE DIAGRAM



REF	PART	QTY	DESCRIPTION
1	73501	1	Wiring Harness
2	72185	2	Toggle switch
3	66069	1	Relay - 12V
4	71386	1	Auto fuse 15 AMP
5	71387	1	Auto fuse 7.5 AMP
6	72748	2	Actuator wire
7	73500	1	Female spade T-tap

MAN0118 (Rev. 12/1/2006) Parts 17

BOLT TORQUE CHART

Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

Fasteners must always be replaced with the same grade as specified in the manual parts list.

Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for metric hardware.

Make sure fastener threads are clean and you start thread engagement properly.

All torque values are given to specifications used on hardware defined by SAE J1701 & J1701M JUL96.



SAE SERIES TORQUE CHART



(No Dashes)

SAE Bolt Head Identification



SAE Grade 5 (3 Radial Dashes)



SAE Grade 8 (6 Radial Dashes)

(A) Diameter		MARKING ON HEAD								
	Wrench	SA	\E 2	SA	AE 5	SAE 8				
(Inches)	Size	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m			
1/4"	7/16"	6	8	10	13	14	18			
5/16"	1/2"	12	17	19	26	27	37			
3/8"	9/16"	23	31	35	47	49	67			
7/16"	5/8"	36	48	55	75	78	106			
1/2"	3/4"	55	75	85	115	120	163			
9/16"	13/16"	78	106	121	164	171	232			
5/8"	15/16"	110	149	170	230	240	325			
3/4"	1-1/8"	192	261	297	403	420	569			
7/8"	1-5/16"	306	416	474	642	669	907			
1"	1-1/2"	467	634	722	979	1020	1383			



METRIC SERIES TORQUE CHART



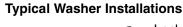
Grade 8.8

Metric Bolt Head Identification

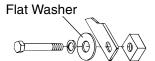


Metric Grade 10.9

						I				I
(A)		COARSE THREAD			FINE THREAD				A	
		MARKING ON HEAD			MARKING ON HEAD					
Diameter & Thread Pitch	Wrench	Metr	ic 8.8	Metri	c 10.9	Metr	ic 8.8	Metri	c 10.9	Diameter & Thread Pitch
(Millimeters)	Size	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	(Millimeters)
6 x 1.0	10 mm	8	6	11	8	8	6	11	8	6 x 1.0
8 x 1.25	13 mm	20	15	27	20	21	16	29	22	8 x 1.0
10 x 1.5	16 mm	39	29	54	40	41	30	57	42	10 x 1.25
12 x 1.75	18 mm	68	50	94	70	75	55	103	76	12 x 1.25
14 x 2.0	21 mm	109	80	151	111	118	87	163	120	14 x 1.5
16 x 2.0	24 mm	169	125	234	173	181	133	250	184	16 x 1.5
18 x 2.5	27 mm	234	172	323	239	263	194	363	268	18 x 1.5
20 x 2.5	30 mm	330	244	457	337	367	270	507	374	20 x 1.5
22 x 2.5	34 mm	451	332	623	460	495	365	684	505	22 x 1.5
24 x 3.0	36 mm	571	421	790	583	623	459	861	635	24 x 2.0
30 x 3.0	46 mm	1175	867	1626	1199	1258	928	1740	1283	30 x 2.0





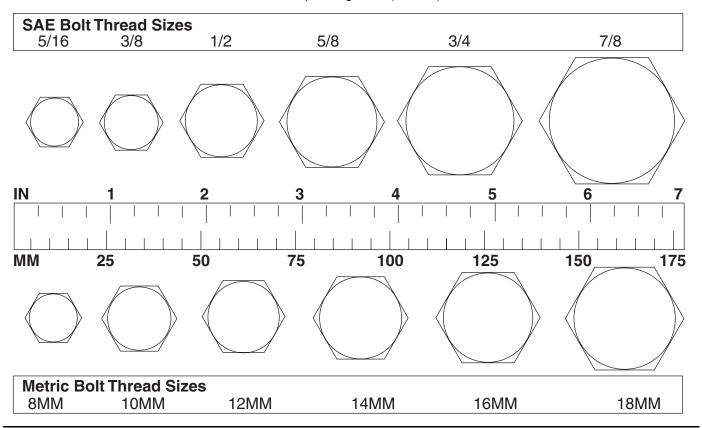




8/9/00

BOLT SIZE CHART

NOTE: Chart shows bolt thread sizes and corresponding head (wrench) sizes for standard SAE and metric bolts.



ABBREVIATIONS

AG	Agriculture
ATF	Automatic Transmission Fluid
BSPP	British Standard Pipe Parallel
BSPTM	British Standard Pipe Tapered Male
CV	Constant Velocity
CCW	Counter-Clockwise
CW	Clockwise
F	Female
GA	Gauge
GR (5, etc.)	Grade (5, etc.)
HHCS	Hex Head Cap Screw
HT	Heat-Treated
JIC	Joint Industry Council 37° Degree Flare
LH	Left Hand
LT	Left
m	Meter
mm	Millimeter
M	Male
MPa	Mega Pascal
N	Newton

NC	National Coarse
NF	National Fine
NPSM	National Pipe Straight Mechanical
NPT	National Pipe Tapered
NPT SWF	National Pipe Tapered Swivel Female
ORBM	O-Ring Boss - Male
P	Pitch
PBY	Power-Beyond
psi	Pounds per Square Inch
PTO	Power Take Off
QD	Quick Disconnect
RH	Right Hand
ROPS	Roll-Over Protective Structure
RPM	Revolutions Per Minute
RT	Right
SAE	Society of Automotive Engineers
UNC	Unified Coarse
UNF	Unified Fine
UNS	Unified Special

LIMITED WARRANTY

(Mow'n Machine™ Zero-Turn Mower and Woods Boundary™ Utility Vehicle Replacement Parts)

Woods Equipment Company ("WOODS") warrants replacement parts for Mow'n Machine™ zero-turn mowers and attachments and Woods Boundary™ utility vehicles, accessories and attachments to be free from defect in material and workmanship for a period of ninety (90) days from the date of delivery of the product to the original purchaser.

IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO A PERIOD OF NINETY (90) DAYS FROM THE DATE OF DELIVERY OF THE PRODUCT TO THE ORIGINAL PURCHASER. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer the product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

This Warranty does not cover normal wear or tear, or normal maintenance items, or any damage, failure or loss caused by improper operation, improper maintenance, misuse, or an accident.

WOODS' obligation under this Warranty is limited to, at WOODS' option, the repair or replacement, free of charge, of the product if the product is defective or in noncompliance with this Warranty. The product must be returned to WOODS with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid. WOODS shall complete such repair or replacement within a reasonable time after WOODS receives the product.

WOODS shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory. Without limiting the foregoing, WOODS shall not be liable for any damages relating to (i) lost profits, business, revenues or goodwill; (ii) any expense or loss incurred for labor, supplies, substitute machinery or rental; or (iii) any other type of damage to property or economic loss. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

No agent, representative, dealer, distributor, service person, salesperson, or employee of any company, including without limitation, WOODS, its authorized dealers, distributors, and service centers, is authorized to alter, modify, or enlarge this Warranty.

This Warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Answers to any questions regarding warranty service and locations may be obtained by contacting:

Woods Equipment Company

2606 South Illinois Route 2 Post Office Box 1000 Oregon, Illinois 61061

800-319-6637 tel 800-399-6637 fax www.WoodsEquipment.com



ALITEC™

BMP®

CENTRAL FABRICATORS®

GANNON®

GILL®

WAIN-ROY®

WOODS®



LIMITED WARRANTY

(Mow'n Machine™ Zero-Turn Mowers and Woods Boundary™ Utility Vehicles)

Please Enter Information Below and Save For Future Reference.

Date Purchased:	From (Dealer):
Model Number:	Serial Number:

WHAT IS COVERED:

Woods Equipment Company ("WOODS") warrants Mow'n Machine™ zero-turn mowers and attachments and Woods Boundary™ utility vehicles, accessories and attachments to be free from defect in material and workmanship for the warranty periods listed below.

FOR HOW LONG:

Mow'n Machine Model #CZ2136B, CZ1736K, CZ1942K, CZ1948K, CZ1952K, FE21B, FZ21D, FZ23B, FZ28K, ME2052B, MZ1952K, MZ2652G, MZ2561K, MZ2761, MZ3361G, MZ3372G, MZ2061YD & attachments are warranted for two (2) years from the date of delivery to the original purchaser or 2000 hours of operation, whichever occurs first.

Woods Boundary utility vehicle Model #MAV350, MAV480, MAV4x4, accessories & attachments are warranted for two (2) years from the date of delivery to the original purchaser.

IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN WARRANTY PERIODS LISTED ABOVE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

WHO IS COVERED:

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer the product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

WHAT IS NOT COVERED:

This Warranty does not cover normal wear or tear, or normal maintenance items, or any damage, failure or loss caused by:

- 1. Improper operation, improper maintenance, misuse, or an accident;
- 2. Any modification or repair by someone other than WOODS, a WOODS authorized dealer or distributor, and/or a WOODS authorized service center; or
- 3. Repairs made with parts other than those obtainable through WOODS.

WOODS makes no warranty, express or implied, with respect to engines, batteries, tires or other parts or accessories not manufactured by WOODS. Warranties for these items, if any, are provided separately by their respective manufacturers.

WHAT WOODS WILL DO TO CORRECT PROBLEMS:

WOODS' obligation under this Warranty is limited to, at WOODS' option, the repair or replacement, free of charge, of the product if the product is defective or in noncompliance with this Warranty. The product must be returned to WOODS with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid. WOODS shall complete such repair or replacement within a reasonable time after WOODS receives the product.

OTHER LIMITATIONS:

WOODS shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory. Without limiting the foregoing, WOODS shall not be liable for any damages relating to (i) lost profits, business, revenues or goodwill; (ii) any expense or loss incurred for labor, supplies, substitute machinery or rental; or (iii) any other type of damage to property or economic loss. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

No agent, representative, dealer, distributor, service person, salesperson, or employee of any company, including without limitation, WOODS, its authorized dealers, distributors, and service centers, is authorized to alter, modify, or enlarge this Warranty.

HOW STATE LAW APPLIES:

This Warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

QUESTIONS:

Answers to any questions regarding warranty service and locations may be obtained by contacting:

- AI.ITEC."
 - BMP ®
- CENTRAL FABRICATORS®
 - **GANNON**®
 - CIT.I.
 - **WAIN-ROY**®
 - WOODS®



MAN0118

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